

# DOE Partnerships for Affordable Housing

A program to improve the energy efficiency and affordability of public and privately owned housing.

# What Are Partnerships for Affordable Housing?

Partnerships for Affordable Housing help housing providers improve the energy efficiency and affordability of public and privately owned single-family and multifamily housing for low- and moderate-income families. The program establishes voluntary collaborations with other federal agencies, state and local governments, utilities,

and the housing development and financing industries to meet the needs defined by local housing providers. Partnerships are designed to build lasting capabilities among housing managers for technical analysis, financial management, project development, and to apply proven technologies and practices in communities.



Partnerships for Affordable Housing have three major paybacks:

- Improving energy efficiency and thereby reducing energy-related costs — can have a huge impact on the budgets of low-income families, for
  - whom energy costs are commonly the largest single housing expense after food and shelter.
- Energy- and resource-efficient building designs and retrofits improve the comfort and living environment of homes.
- heating bills had been \$1,200 per year, in her new apartment they would drop to \$200 per year. Relatively modest investments in improving the energy efficiency of housing can free operating funds for

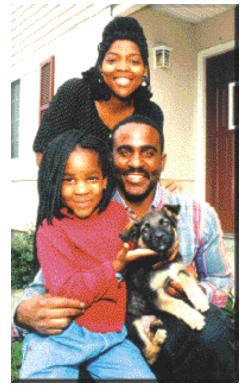


... A Chicago resident about to move into a newly

superinsulated building noted that whereas her

Did you know . . .





COURTESY OF HABITAT FOR HUMANITY INTERNATIONAL (ROBERT J. BAKER)

## Who Participates?

Any organization involved in providing low- or moderate-income housing:

- Public housing authorities e.g., the Atlanta and Chicago Housing **Authorities**
- Nonprofit and private housing providers and advocates e.g., Bethel New Life in Chicago, Habitat for Humanity, Global Green
- State and local governments e.g., Texas State Energy Conservation Office
- Housing associations e.g., National Association of Housing and Redevelopment Officials (NAHRO)
- Utilities e.g., Commonwealth Edison in Northern Illinois
- Federal agencies e.g., the U.S. Department of Housing and Urban Development (HUD)

### Partnership Goals for the Year 2000

- Incorporate energy and resource efficiency in the retrofit and construction of over 1 million residential units
- Promote a comprehensive approach to energy- and resourceefficient design, construction, and operation of housing
- Help meet national energy efficiency goals and decrease emissions of greenhouse gases



### Targeted Improvements

- Energy- and resource-efficient building designs
- Upgrades or retrofits in heating/cooling systems and insulation
- Water-conservation retrofits
- Energy-efficient appliances
- Energy-efficient maintenance and operations



#### Housing Managers

- Project selection and management
- Measure installation and maintenance



- Support for project planning
- Technical expertise and assistance

#### Third Parties

- Technical and management support
- Capital investment and financing

# Approach

### Community housing provider:

- Identifies candidate projects
- Provides an action plan and specifications
- Finances and installs energy efficiency improvements

### Department of Energy:

- Provides a program representative to aid in defining energyefficiency needs
- Assists in project planning and building performance
- Provides technical assistance

#### Third Parties:

- Provide technical and management support
- Provide capital investment and financing

# Assistance to Partners

- Action planning
- Housing designs and specifications
- Building retrofit and rehabilitation
- Financing and performance contracting guidance
- Software simulation tools
- Housing inspection guide
- · Building audit methods and guidelines
- Monitoring and verification
- Information on energy-efficient technologies
- Utility accounting and analysis
- Training of residents and staff
- Field-testing of promising technologies





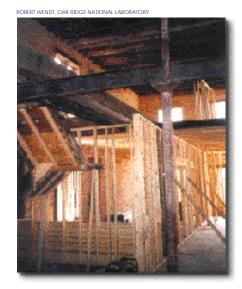
### Partnerships in Progress

The Chicago Housing Authority (CHA)

Why: CHA pays almost \$45 million annually in utility costs in its approximately 41,000 public housing units. Housing residents and CHA are also concerned about lead hazards and job creation.

What: CHA is installing a low-cost composite wall system designed in DOE labs that improves insulation while encasing lead hazards. The wall system is simple enough in its installation to provide the potential of jobs for CHA residents. This energy-saving feature will reduce utility costs in housing without significantly increasing the cost of renovation.

Who: CHA, DOE, Louisiana-Pacific, Celotex, Argonne and Oak Ridge National Laboratories





### Habitat for Humanity

Why: Habitat for Humanity is one of the largest builders of new homes in the United States. It is working to minimize the negative environmental impact of its 3,000-homes-per-year building program.

What: Habitat for Humanity International hopes to improve energy efficiency and indoor living conditions by providing local affiliates with resource-efficient plans and specifications for standard affordable housing designs, along with technical bulletins describing specific energy-efficiency practices. Energy-efficiency practices that can easily be incorporated into the building process will be demonstrated during the 1997 and 1998 Jimmy Carter Work Projects and taught at multiple training sessions.

Who: Habitat for Humanity International, Oak Ridge National Laboratory, National Renewable Energy Laboratory, Florida Solar Energy Center, Southface Energy Institute, Virginia Housing and Environment Network, Global Green USA, National Association of Home Builders Research Center

#### Other Partners

- The Atlanta Public Housing Authority, to improve energy efficiency and reduce water consumption in 14,700
  units of public and assisted housing
- Commonwealth Edison, in an energy efficiency program initiated by the utility to assist in the rehabilitation of buildings for low- and moderate-income Chicago residents
- Bethel New Life in Chicago, to create energy-efficient affordable housing in low-income communities



If your organization is interested in participating in the Partnerships for Affordable Housing, all you need to do is complete a Partnership agreement form, which asks you to

- take the lead in carrying out energy-efficiency improvements in public or private residential housing,
- describe the kind of support desired from DOE,
- provide an action plan,
- promote participation in the Partnership program, and
- consider community-wide expansion through DOE's Rebuild America program.

To obtain an agreement form, or for more information, call the Energy Efficiency and Renewable Energy Clearinghouse (EREC), 1-800-D0E-EREC (363-3732), or write EREC, P.O. Box 3048, Merrifield, VA 2216-0121. Additional information is available on the World Wide Web home page of D0E's Office of Energy Efficiency and Renewable Energy (http://www.eren.doe.gov), Office of Building Technology, State and Community Programs.



The Partnerships for Affordable Housingis a program of the Office of Energy Efficiency and Renewable Energy, U.S. Department of Energy

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